



19 CROSBY DRIVE
BEDFORD, MASSACHUSETTS 01730
617-275-2970



SEMS DocID 645298

C-583-2-8-81
March 2, 1988

Final Site Inspection Memo
Roy Brothers Haulers
Billerica, Massachusetts

TDD No. F1-8612-11
Reference No. \$375MA81\$1
CERCLIS No. MAD009870643

INTRODUCTION

Roy Brothers (Bros.) Haulers is located at 764 Billerica Road (Rte. 3-A), in Billerica, Massachusetts, on approximately one acre of land. The property is located just west of a large wetland which, in turn, is immediately west of the Shawsheen River. The Shawsheen River flows through the wetland. The main building houses the Roy Bros. Haulers offices, truck rinsing bays and the waste treatment facilities. Two unlined infiltration lagoons are located east of the main building, adjacent to the wetlands bordering the eastern boundary of the property.

Roy Bros. Haulers is a family owned and operated business which transports liquid and dry industrial chemicals. It operates a fleet of tank trucks and hauls many different substances, some of which are potentially hazardous. Process wastewaters are generated onsite by rinsing (with water and detergents) the interior and exterior of tanker trucks which have been used for the transport of liquid or dry chemicals. The wastewaters are collected in the washing bays by means of floor drains which discharge into a concrete holding tank buried below floor level. From 1981 until present, the process wastewaters have been treated and filtered onsite and discharged into the Billerica municipal sewage system under an NPDES permit. The sludge from the treatment and filtration system is collected in a holding tank located immediately behind the building.

From 1968 to 1981, an unknown quantity of process wastewater was discharged into the two unlined infiltration lagoons east of the main building.

In 1981, sludge from the wastewater treatment facility was used to make a concrete sludge mix that could be disposed of in a manner other than as a liquid waste. A pile of this material remained on the facility grounds for several months before it was removed by a licensed hauler. In 1981, samples of the concrete-sludge waste pile were collected by the DEQE and analyzed at the Lawrence Experimental Station. The analysis indicated that the concrete-sludge pile contained 25% volatile organic compounds and 3,090 ppb of chromium.

Inspectors from DEQE observed that numerous drums and small containers were piled among other debris on the ground east of the main building. Many of the drums were empty, but some contained an assortment of waste materials including residues from truck cleaning operations. Many of the drums containing waste materials were uncovered and some were leaking and overflowing onto the ground.

In 1981, Whitney Barrel was contracted by Roy Bros. Haulers to remove the drums, contaminated top soils, and the contents of the two unlined lagoons, as ordered by DEQE. Compounds detected in samples of surface water and the lagoons included methyl chloride, acetone, 1,1,1-trichloroethane, toluene, and xylenes.

1. Groundwater Route

Wells were installed by Guild Drilling Co., Inc., along the edge of the wetlands and on the edge of the property which is downgradient from the location of the two former wastewater lagoons.

Samples of groundwater from each well were obtained on May 9, 1986, by Environmental Field Services, Inc. (an environmental consulting firm contracted by the DEQE). Results indicated that low levels of volatile organic compounds and metals exist in samples taken downgradient and upgradient from the lagoons. Some of the metals detected in the downgradient groundwater samples are cadmium, chromium, and lead at concentrations of <0.005, <0.01, and <0.04 parts per million, respectively. The same metals were also detected in the upgradient groundwater samples at the same ranges. However, detected within the unlined lagoons at higher concentrations are such compounds as acetone, methyl ethyl ketone, and xylenes at concentrations ranging from 7,060; 36,600; 2,690 and 763 parts per billion (ppb), respectively. A municipal well is located three miles south of the site in Bedford, Massachusetts, along the Shawsheen River. This well is one of three wells which provide 0.4 million gallons of water a day to 12,550 Bedford residents. There are also 29 private wells (serving approximately 104 people) within a three mile radius of the site.

2. Surface Water

Surface water samples were collected in 1981 by the DEQE and analyzed at the Lawrence Experimental Station. The volatile organic compounds methylene chloride, chloroform and 1,1,1-trichloroethane at concentrations of 5.7, 2.1, and 2.1 ppb, respectively, were detected in downstream samples. No contaminants were detected in upstream surface water samples. The town of Burlington draws its water from the Shawsheen River less than one mile downstream from the site. This source supplies 23,840 people residing in Burlington.

3. Air Route

This air route was not evaluated. No information has been located documenting that air monitoring has been conducted or needs to be conducted at this site.

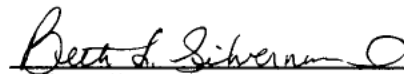
4. Fire & Explosion

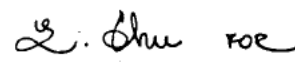
During an onsite inspection by DEQE personnel, five tankers and one open drum were observed and their contents sampled. Analyses of the samples for flash point showed that materials in three of the five tankers and the open drum had a flash point less than 140 degrees Fahrenheit. According to Massachusetts RCRA regulations, these materials are considered ignitable hazardous wastes.

5. Direct Contact

During an onsite inspection by DEQE personnel, unlined lagoons, leaking drums and improperly disposed of concrete-sludge were observed. Although a removal operation took place, if contaminants are still present in the soil, then the potential for direct contact may exist. No soil sampling was conducted afterwards to verify the efficacy of removal. In addition, wastes are contained in mobile unmarked tankers in an unfenced, nonsupervised lot.

Submitted By:


Beth L. Silverman
Project Manager

Approval: 
Joanne O. Morin
FIT Office Manager

GR/rlr



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE MA 02 SITE NUMBER D009870643

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Roy Brothers Haulers		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER 764 Boston Road (Rte. 3-A)	
03 CITY Pinehurst (Billerica)	04 STATE MA	05 ZIP CODE 01866	06 COUNTY Middlesex
07 COUNTRY CODE 017		08 CONG DIST	
09 COORDINATES LATITUDE 42° 32' 0.0" LONGITUDE 71° 14' 3.0"		10 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER <input type="checkbox"/> G. UNKNOWN	

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 4/28/87 MONTH DAY YEAR	02 SITE STATUS <input type="checkbox"/> ACTIVE <input type="checkbox"/> INACTIVE	03 YEARS OF OPERATION 1948 Present UNKNOWN BEGINNING YEAR ENDING YEAR	
04 AGENCY PERFORMING INSPECTION (Check all that apply) <input checked="" type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. MUNICIPAL <input type="checkbox"/> D. MUNICIPAL CONTRACTOR <input type="checkbox"/> E. STATE <input type="checkbox"/> F. STATE CONTRACTOR <input type="checkbox"/> G. OTHER			

05 CHIEF INSPECTOR Brook Monroe (12/21/81)	06 TITLE Engineer	07 ORGANIZATION Mass. DEQE	08 TELEPHONE NO. 617/935-2160
09 OTHER INSPECTORS Kevin T. O'Neill (4/28/87)	10 TITLE Chemist	11 ORGANIZATION NUS/FIT	12 TELEPHONE NO. (617) 275-2970
Jane Conner (4/28/87)	Geologist	NUS/FIT	(617) 275-2970
			()
			()
			()

13 SITE REPRESENTATIVES INTERVIEWED Arthur Roy	14 TITLE Treasurer	15 ADDRESS Roy Brothers Inc.	16 TELEPHONE NO. 617/ 667-1922
Leo Roy	President	" "	" "
Moe Roy	Treasurer	" "	" "
			()
			()
			()

17 ACCESS GAINED BY (Check one) <input type="checkbox"/> PERMISSION <input type="checkbox"/> WARRANT	18 TIME OF INSPECTION 14:15	19 WEATHER CONDITIONS NUS did not go on site, but performed a perimeter survey on 4/28/87. Raining, Temp in low 30's.
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IV. INFORMATION AVAILABLE FROM

01 CONTACT Don Smith	02 OF (Agency/Organization) EPA BOSTON	03 TELEPHONE NO. 617/565-3659
04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Beth Silverman	05 AGENCY NUS	06 ORGANIZATION FIT
07 TELEPHONE NO. (617)275-2970	08 DATE 3/02/88 MONTH DAY YEAR	



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MA D009870643

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A SOLID
☐ B. POWDER, FINES
☐ C. SLUDGE
☐ E. SLURRY
☐ F. LIQUID
☐ G. GAS

☐ D. OTHER _____
Ref. 3,4,20) See entry

02 WASTE QUANTITY AT SITE

(Measure of waste quantities)

7 Gallons/Day
X 0.001 = 6,000

CUBIC YARDS _____

NO. OF DRUMS (Ref. 5)

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A TOXIC
☐ B CORROSIVE
☐ C RADIOACTIVE
☐ D PERSISTENT
☐ E SOLUBLE
☐ F INFECTIOUS
☐ G FLAMMABLE
☐ H IGNITABLE
☐ I HIGHLY VOLATILE
☐ J EXPLOSIVE
☐ K REACTIVE
☐ L INCOMPATIBLE
☐ M NOT APPLICABLE

(Ref. 3,4,20)

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		Roy Bros. Haulers has approximately
OLW	OILY WASTE	unknown		120 tankers and 25 tractors, used for
SOL	SOLVENTS (ref. 21)	4,700	gals/ month	the transportation of a variety of bulk
PSD	PESTICIDES			chemicals.
OCC	OTHER ORGANIC CHEMICALS	unknown		The tankers are cleaned onsite after
IOC	INORGANIC CHEMICALS	unknown		each load. The washwater residue
ACD	ACIDS	unknown		from the trucks is discharged onsite.
BAS	BASES	unknown		The wastes generated are wastewater
MES	HEAVY METALS			treatment sludge and chemical residue.

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

(Ref 6, 11, 12)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
MES	Chromium	7440473	In 1968-1981 process waste-	3090	Mg/g
OCC	Benzene	71-43-2	waters were disposed of by	21	Ppm
OCC	Toluene	108-88-3	discharge into 2 infiltration	2690	"
OCC	Tetrahydrofuran	109999	lagoons..	130	"
OCC	Chloroethane	75-00-3		42	"
OCC	Acetone	67-64-1	presently, wastewater flows	18,000	"
OCC	Methyl Ethyl Ketone	79833	into floor drains and is pump-	36,000	"
OCC	Methyl Isobutyl Ketone	108-10-1	ed through Roy Bros. Waste-	680	"
OCC	Ethyl Benzene	100-41-4	water treatment unit. The	350	"
OCC	Styrene	100-42-5	wastes are then pumped to	45	"
OCC	Xylenes	1330-20-7	a 5000 gallon tank truck used	763	"
OCC	Penta chlorophenol	87-86-5	for storage. Cannon's Eng. Co.	20	"
OCC	Methyl Chloride	74-87-3	(a licensed disposal facility)	3000	"
OCC	1-1-1, Trichloroethene	71-55-6	Then disposed of the wastes.	150	"
AOD	Sulfuric Acid	7664-93-9	(Hazardous substances detected		
OCC	Phenol	108-95-2	in lagoons, wetland, sludge	34.4	

V. FEEDSTOCKS (See Appendix for CAS Numbers)

in tanker, standing water on (REF. 8,9)
site & sludge piles.)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

References: 3,4,5,6,8,9,11,12,20.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MA D009870643

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 12,500 04 NARRATIVE DESCRIPTION

Trucks for bulk transport of liquid chemicals are washed out at the facility. The washwater residue was discharged into two unlined lagoons. The facility is located three miles from a municipal well located on Shawsheen Road. This well water is mixed with MDC Water, and supplies 12,550 Bedford Residents. (ref. 3,5, 13)

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 23,840 04 NARRATIVE DESCRIPTION

Roy Bros. Haulers was combining its Wastewater sludge with Portland cement and dumping it on the ground, as a means of disposal. Hazardous constituents may leach from this pile of sludge and potentially contaminate surface water in the vicinity. The facility is situated adjacent to the Shawsheen River. The town of Burlington draws its water from this river less than 1 mile down stream from the site. This water supplies 23,840 people residing in Burlington (ref. 4,5,7,13,14)

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS 02 ☒ OBSERVED (DATE: 03/05/85) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

During an onsite inspection by DEQE personnel, five tankers and one open drum was observed. Analysis of the samples for flash point showed that material in three of the five tankers and the open drum had a flash point less than 140 F. According to Mass. RCRA regulations, the materials in these tankers are considered an ignitable hazardous waste. (ref. 18)

01 ☒ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 36,390 04 NARRATIVE DESCRIPTION

During an onsite inspection by DEQE personnel, unlined lagoons, leaking drums and improperly disposed of concretized sludge were observed. Although there has been a removal operation, if chemical contaminants are in the soil, then potential for direct contact may still exist.

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Wastes disposed of on the facility grounds include, cemented sludge waste, and spilled chemicals from leaking drums. Site inspectors from the Billerica Board of Health noted that the practice of disposing the cement sludge has resulted in visible contamination of the ground soil. This soil was removed by Leo Roy in 1979. He excavated the soil with a back hoe down to a depth of about six feet. No testing was done on this soil; it was transported offsite by Coastal Services, Inc.

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☐ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE MA 02 SITE NUMBER D009870643

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (Include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES
(Spills/Runoff Standing liquids Leaking drums)

02 ☒ OBSERVED (DATE: 02/06/81)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

(REF. 5)

Inspectors from DEQE observed that many of the drums containing waste material were uncovered and some were leaking and overflowing onto the ground. Also the washwater residue from the trucks, (which transport liquid chemicals) was discharged into the unlined lagoons.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING

02 ☒ OBSERVED (DATE: 5/18/83)

☐ POTENTIAL

☐ ALLEGED

04 NARRATIVE DESCRIPTION According to Leo Roy, Roy Bros. Haulers prepared wastewater sludge for disposal by mixing it with cement. The seven foot high, cone shaped waste pile was dumped in the east rear yard, on the company's property. The pile was partly covered with a plastic sheet held in place with rubber tires. Sampling of the sludge pile indicates that volatile organics and chromium were present. (ref. 9, 15)

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: _____

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g. State files, sampling analysis reports)

REFERENCES 3,4,5,7,9,10,13,14,15, 17, 18, 19,24,25, 26, 27, 31.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE MA 02 SITE NUMBER D009870643

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input checked="" type="checkbox"/> A. NPDES				
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input type="checkbox"/> I. OTHER (Specify)				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE (ref. 3)	04 TREATMENT (Check all that apply)	05 OTHER
<input type="checkbox"/> A. SURFACE IMPOUNDMENT lagoon	200,000	gal	<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE (Ref. 17)
<input type="checkbox"/> B. PILES	Unknown		<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND	Unknown		<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input type="checkbox"/> H. OTHER Infiltration lagoons (Specify)	
<input type="checkbox"/> I. OTHER (Specify)			(Ref. 3)	06 AREA OF SITE ____ (Acres)

07 COMMENTS Prior to 1981, process wastewaters were discharged into two infiltrations lagoons. These lagoons were located immediately adjacent to the wetlands that abut the eastern boundary of the facility. From 1981 until present, the process wastewaters were treated and filtered onsite and then discharged into the Billerica Municipal Sewage System. (Ref. 31)

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DRUMS, LINERS, BARRIERS, ETC.

Inspectors from DEQE observed that many of the drums containing waste material were uncovered and some were leaking and overflowing onto the ground. Also the washwater residue from the trucks, (which transport liquid chemicals) was discharged into two unlined lagoons. (Ref. 5)

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO Wastes are in mobile unmarked tankers in an unfenced, non-supervised lot which lacks danger signs and 24-hour surveillance. Trucks enter and exit the lot with out supervision on a 24-hour basis. (Ref. 18, 19)

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, reports, studies, records)

REFERENCES; 17, 18, 19, 30, 31.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MA D009870643

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY

02 STATUS

ENDANGERED A. ☒ B. ☐
AFFECTED C. ☐ D. ☐
MONITORED E. ☐ F. ☐

03 DISTANCE TO SITE
Surface water A. 0.10 (mi)
Ground water B. 3.0 (mi)
0.2 (mi)

III. GROUNDWATER (REF. 24, 25, 26, 27)

01 GROUNDWATER USE IN VICINITY (Check only)

☒ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING
(Other sources available)
☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION
(Other sources available)
☐ D. NOT USED, UNUSABLE
(No other water sources available)

02 POPULATION SERVED BY GROUND WATER 12,500

03 DISTANCE TO NEAREST DRINKING WATER WELL 0.2 (mi)

04 DEPTH TO GROUNDWATER
(Ref. 28)
4 (ft)

05 DIRECTION OF GROUNDWATER FLOW
West to East

06 DEPTH TO AQUIFER
OF CONCERN (ft)

07 POTENTIAL YIELD
OF AQUIFER
Unknown (gpd)

08 SOLE SOURCE AQUIFER
☒ YES ☐ NO

09 DESCRIPTION OF WELLS (including location, depth, and reason for use)

(b) (9)

(Ref. 24, 25, 26, 27)

10 RECHARGE AREA

☐ YES COMMENTS
☐ NO

11 DISCHARGE AREA

☐ YES COMMENTS
☐ NO

IV. SURFACE WATER

01 SURFACE WATER USE (Check only)

☒ A. RESERVOIR, RECREATION
DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY
IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:

Shawsheen River (Ref. 2, 4, 27)

AFFECTED

DISTANCE TO SITE

0.05

☐

(mi)

☐

(mi)

☐

(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

Based on house count on topographic maps
One house = 3.8 persons

02 DISTANCE TO NEAREST POPULATION

ONE (1) MILE OF SITE
A. 6,391
NO. OF PERSONS

TWO (2) MILES OF SITE
B. 14,629
NO. OF PERSONS

THREE (3) MILES OF SITE
C. 27,366
NO. OF PERSONS

0.10

(mi)

(Ref. 2, 20)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

61

04 DISTANCE TO NEAREST OFF-SITE BUILDING

0.12

(mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural village, densely populated urban area)

Roy Bros. Haulers is surrounded by a densely populated area.

The Shawsheen River flows just east of the site and Boston Road (Rt. 3-A) is located just south of the site. (Ref. 15, 20)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE MA. 02 SITE NUMBER LD09870643

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-6} - 10^{-8}$ cm/sec) ☐ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)
(ref. 1, 2, 29)

03 DEPTH TO BEDROCK

Unknown (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

Unknown (ft)

05 SOIL pH

6.5
(Ref. 28)

06 NET PRECIPITATION

43 (in)

07 ONE YEAR 24 HOUR RAINFALL

2.5 (in)

08 SLOPE
SITE SLOPE

0-3 %

DIRECTION OF SITE SLOPE

Unknown

TERRAIN AVERAGE SLOPE

0-5 %

09 FLOOD POTENTIAL

10

SITE IS IN _____ YEAR FLOODPLAIN

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

OTHER

A. _____ (mi)

B. 0.05 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

_____ (mi)

ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS, NATIONAL/STATE PARKS,
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. 0.2 (mi)

B. 0.2 (mi)

C. _____ (mi) D. _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The topography of the area is characterized by broad poorly drained lowlands and rounded hills. Surface topography within the site and in the immediate area is relatively level. The site is situated next to the Shawsheen River (a major drainage basin). The property is also located just west of a large wetlands.

(Ref. 31, 32)

VII. SOURCES OF INFORMATION (List sources referenced, e.g., SCSD files, expert opinions, references)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MA 0009870643

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	2	Lawrence Experimental Station	2/24/81
SURFACE WATER	4		"
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL (soil mixed w/ distilled water for chronic toxicity test)	4	Thortenson Laboratory Inc.	11/3/76
VEGETATION			
OTHER	2	Lawrence Experimental Station	2/24/81

III. FIELD MEASUREMENTS TAKEN

(Ref. 9, 20)

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input checked="" type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF <u>NUS CORP.</u> <small>(Name of organization or individual)</small>
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS <u>MASS DEQE</u>

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Ambient air monitoring with an HNU was conducted by DEQE on the facility. Readings as high as 5 ppm were detected inside the truck rinsing warehouse. Readings as high as 15 ppm were detected near barrels containing tank residue.

VI. SOURCES OF INFORMATION (Cite specific references e.g. State files, survey analysis, reports)

References 9, 15, 20



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MA D009870643

II. CURRENT OWNER(S)				PARENT COMPANY / AFFILIATE(S)			
01 NAME Leo Roy		02 D+S NUMBER		06 NAME		09 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 240 Allen Rd.,		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
06 CITY Pinehurst,		08 STATE MA	07 ZIP CODE 01866	12 CITY		13 STATE	14 ZIP CODE
01 NAME (Ref. 3,4)		02 D+S NUMBER		06 NAME		09 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
06 CITY		08 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+S NUMBER		06 NAME		09 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
06 CITY		08 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+S NUMBER		06 NAME		09 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
06 CITY		08 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
01 NAME		02 D+S NUMBER		06 NAME		09 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)		11 SIC CODE	
06 CITY		08 STATE	07 ZIP CODE	12 CITY		13 STATE	14 ZIP CODE
III. PREVIOUS OWNER(S) (Last three previous only)				IV. REALTY OWNER(S) (If applicable, see third report first)			
01 NAME		02 D+S NUMBER		01 NAME		02 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
06 CITY		08 STATE	07 ZIP CODE	06 CITY		08 STATE	07 ZIP CODE
01 NAME		02 D+S NUMBER		01 NAME		02 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
06 CITY		08 STATE	07 ZIP CODE	06 CITY		08 STATE	07 ZIP CODE
01 NAME		02 D+S NUMBER		01 NAME		02 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	
06 CITY		08 STATE	07 ZIP CODE	06 CITY		08 STATE	07 ZIP CODE
V. SOURCES OF INFORMATION (City agencies referenced, e.g., state files, airport records, etc.)							
(REF. 3,4)							



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MA D009870643

II. CURRENT OPERATOR (Provide if different from owner)				OPERATOR'S PARENT COMPANY (If applicable)			
01 NAME Leo Roy		02 D+S NUMBER		10 NAME		11 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 240 Allen Rd.,		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY Pinehurst,		06 STATE MA.	07 ZIP CODE 01866	14 CITY		15 STATE	16 ZIP CODE
(Ref. 3, 4)							
08 YEARS OF OPERATION		09 NAME OF OWNER					
III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)			
01 NAME		02 D+S NUMBER		10 NAME		11 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+S NUMBER		10 NAME		11 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+S NUMBER		10 NAME		11 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+S NUMBER		10 NAME		11 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
06 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					

IV. SOURCES OF INFORMATION (City specific references, e.g., state files, airport surveys, records)

(REF. 3, 4)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
MA. D009870643

II. ON-SITE GENERATOR

01 NAME Leo Roy	02 D+S NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 240 Allen Road	04 SIC CODE	
05 CITY Pinehurst, (ref. 3,4)	06 STATE 07 ZIP CODE MA. 01866	

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+S NUMBER	01 NAME	02 D+S NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+S NUMBER	01 NAME	02 D+S NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+S NUMBER	01 NAME	02 D+S NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+S NUMBER	01 NAME	02 D+S NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., MSDS files, company files, reports)

(REF. 3,4)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE MA 02 SITE NUMBER D009870643

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☒ D. SPILLED MATERIAL REMOVED
04 DESCRIPTION

02 DATE Feb. 1981

03 AGENCY Main Coastal

Roy Bros. Haulers was combining its wastewater sludge with Portland Cement, and storing it on the ground. The spilled sludge was removed by Main Coastal (a waste disposal co.). Also Whitney Barrel Company had been contracted to separate and dispose of the barrels onsite. Damaged drums containing sludge residue were crushed and disposed offsite. (Ref. 10)

01 ☒ E. CONTAMINATED SOIL REMOVED
04 DESCRIPTION

02 DATE August 1985

03 AGENCY Coastal Services Inc.

Wastes disposed of on the facility grounds include: cemented sludge waste, and spilled chemicals from leaking drums. The contaminated soil was removed by Leo Roy in 1979. He excavated the soil with a backhoe down to a depth of about six feet. This soil was transported offsite by Coastal Services Inc. (Ref. 5, 31)

01 ☐ F. WASTE REPACKAGED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☒ G. WASTE DISPOSED ELSEWHERE
04 DESCRIPTION

02 DATE

03 AGENCY

DEQE has given official permission that the concretized sludge can be disposed of at an approved landfill, provided it is not mixed with biodegradable refuse. It must be isolated in a separate area of the landfill, or on top of closed sections and covered with six inches of impermeable cover material. (REF. 22)

01 ☐ H. ON SITE BURIAL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ I. IN SITU CHEMICAL TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ J. IN SITU BIOLOGICAL TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ K. IN SITU PHYSICAL TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ L. ENCAPSULATION
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ M. EMERGENCY WASTE TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ N. CUTOFF WALLS
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ P. CUTOFF TRENCHES/SUMP
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Q. SUBSURFACE CUTOFF WALL
04 DESCRIPTION

02 DATE

03 AGENCY



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER
MA D009870643

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ S. CAPPING/COVERING
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ T. BULK TANKAGE REPAIRED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ U. GROUT CURTAIN CONSTRUCTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ V. BOTTOM SEALED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ W. GAS CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ X. FIRE CONTROL
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Y. LEACHATE TREATMENT
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Z. AREA EVACUATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 1. ACCESS TO SITE RESTRICTED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 2. POPULATION RELOCATED
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 3. OTHER REMEDIAL ACTIVITIES
04 DESCRIPTION

02 DATE

03 AGENCY

III. SOURCES OF INFORMATION (Cite specific references, e.g., field notes, design drawings, records)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

Q1 STATE MA Q2 SITE NUMBER D009870643

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☐ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

The following is a summary of past violations:

<u>Violations</u>	<u>Massachusetts Regulations</u>
Open containers	30.099
No exception reports filed	30.333
Storage of waste greater than 90 days without a permit	30.801
No waste analysis plan	30.513
No danger signs or site security	30.514
No inspection schedule or log	30.515
No contingency plan	30.521
No operating records	30.540
No closure plan	30.580
No inspection of tanks	30.616
No financial assurance	30.900
No updated closure cost estimates	30.903
No training plan	30.516
Contingency plan not submitted to local authorities	30.522
Unlabelled containers	30.582

The company's present methods of waste disposal are in violation of Massachusetts Hazardous Waste Regulations. Specific violations are noted:

- The discharge of truck washing wastewater to the ground is a violation of 315 CMR 2.03.
- Practice of "cementing" sludge and disposing of it on the ground is in violation of 315 CMR 2.05.
- The practice of storing hazardous waste without a permit is a violation of 315 CMR 2.03.
- The practice of dumping grit and rain sludge from the pretreatment system on the ground is a violation of 315 CMR 2.05. (REF. 16, 18, 32)

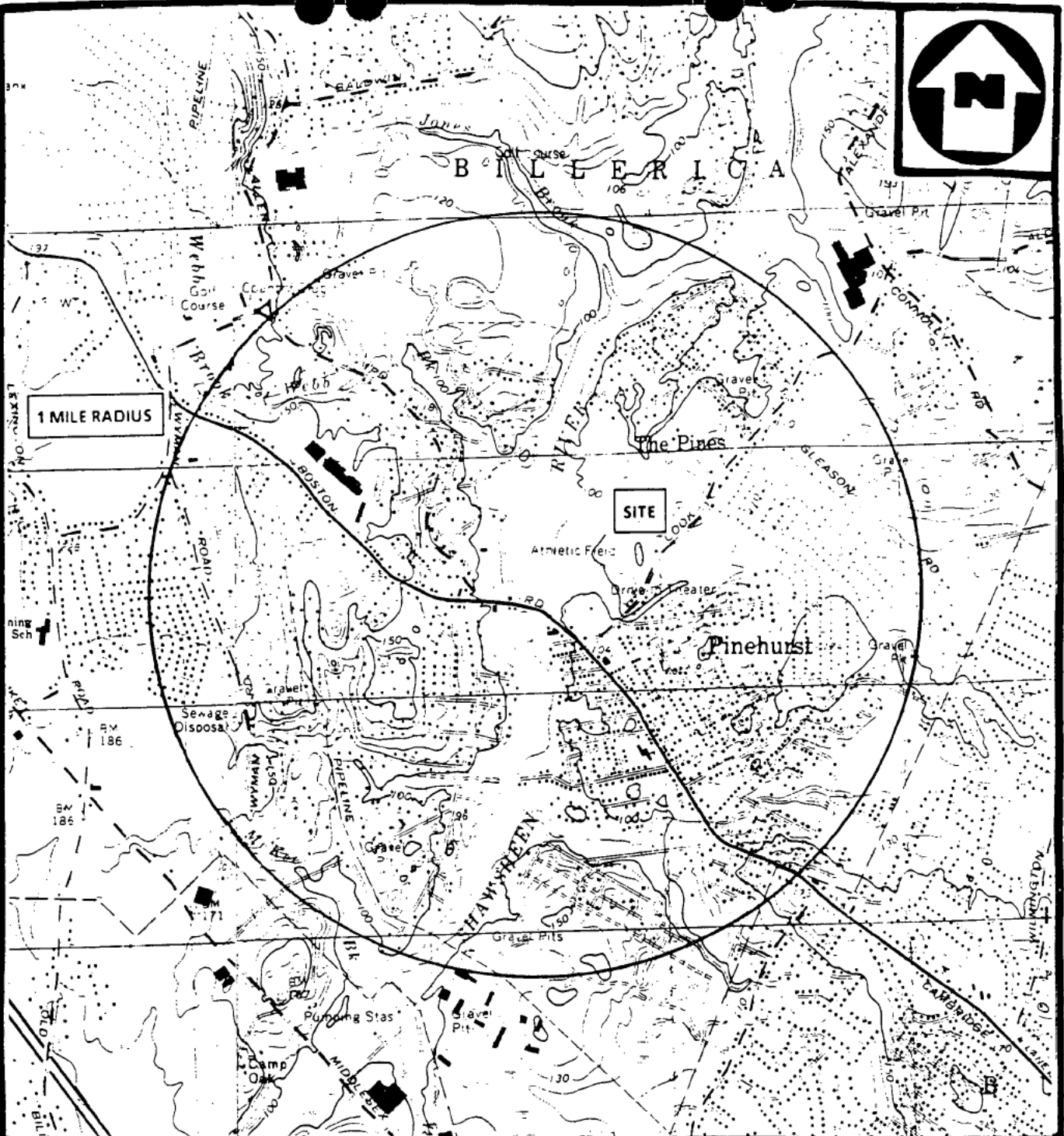
III. SOURCES OF INFORMATION (See specific references, e.g., state files, sample analysis, reports)

(REF. 16, 18, 32)

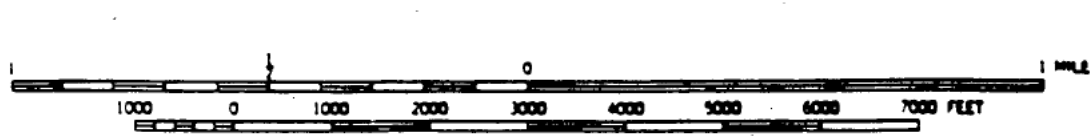
REFERENCES-- ROY BROS. HAULERS

1. Uncontrolled Hazardous Waste Site Ranking System: A user's Manual National Oil and Hazardous Substances Contingency Plan, Appendix A (40 CFR 300) (47 FR 31219) published in the Federal Register of July 16, 1982.
2. U.S. Geological Survey, 1970. Wilmington Quadrangle Massachusetts. 7.5' Series.
- 2a. U.S. Geological Survey. 1980. Hydrogeologic Data of the coastal river basins of North Eastern Massachusetts from Castle Neck River, Ipswich, to Mystic River, Boston.
3. Preliminary Assessment of Roy Bros., Inc. Mass. DEQE. 1980
4. Preliminary Assessment of Roy Bros., Inc. Mass. DEQE 1981
5. Monroe, B. (DEQE). 1981, notes relative to Roy Brothers, Feb.6.
6. Roy Brothers. 1985. Roy Bros. Haulers. Inspected by Peg Carson (DEQE Inspector). Feb 26.
7. Monroe, B. (DEQE). 1981. Notes relative to Roy Bros., Inc. Feb. 13.
8. Deland, M.R. (Regional Administrator, EPA) 1985. Letter to Roy Bros., Inc. June. *Proceeding under Section 3008 of the RCRA, 42 U.S.C. §6928
9. DEQE. 1981. Gas chromatography - Mass Spectrometry analysis % purgable organics. Well logs of wells at Roy Bros. Lagoon, Billerica, MA., Numbered 003563-003520
10. Monroe, B (DEQE) 1981. Notes relative to Roy Bros., Inc. Feb. 27
11. Roy, L. (President, Roy Bros. Haulers) 1977. Letter to Thomas McMahon (Director, Mass Division of Water Pollution Control. May 17
12. Bonne, H. 1977, Letter to Thomas McMahon, (Director, Mass Division of Water Pollution Control) RE: Roy Bros. - Billerica. Oct 27
13. Roy, L (President, Roy Haulers) 1979. Letter to Thomas McMahon (Division of Water Pollution Control) RE: Sludges generated... Can be considered a hazardous waste. Oct. 1
14. Thortensen, (V.P. Thortensen Laboratory Inc.) 1980. Report sent to Leo Roy. RE: EP Toxicity Tests on concretized sludge Sept. 29.
15. Thornton M. (Junior Sanitary Engineer, DEQE) 1983. Letter to John Fitzgerald (Senior Sanitary Engineer) RE: Billerica - Roy Bros., Site update. May 18.
16. Fitzgerald, T. (DEQE) 1983. Letter to Steven DeGabelle, (acting Deputy Director, Division of Hazardous Waste) RE: Billerica - Roy Brothers Trucking Company request for investigation and surveillance Aug. 8.
17. Sirull, B. (DEQR). 1985. Letter to file, Roy Bros.-Large Quantity Generator Inspection. March 4.

18. RCRA Industrial Survey Report. 1985 (EPA) General Information
Roy Brothers, Inc. - EPA Case Development, March 5.
19. EPA 1985. Roy Bros. Inc., RCRA Docket No. 85-1063 Complaint,
compliance, order and notice of opportunity for hearing. June.
20. Potential Hazardous Waste Site Inspection Report 1981. Roy Bros., Inc.
Inspected by Brook Monroe. Feb. 24.
21. Nardone, A. (Department of Water Pollution Control) 1979.
Memorandum for the record - Inspection of Roy Brothers. Sept. 5
22. Hillare W. (Regional Environmental Engineer, DEQE) 1981. Letter to Roy
Bros., Inc. RE: Billerica - Roy Bros., Inc. Disposal of concretized sludge
April 10.
23. Dripps, Greg. (NUS/FIT) 1987. Water supplies within three miles of Lowell,
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24. Silverman, B. (NUS/FIT) 1987. Telecon with Margo Sell. (Billerica Water Dept.)
RE: Roy Bros., Haulers, TDD No. F1-861211. Sept. 16
25. Silverman B. (NUS/FIT) 1987. Telecon with Ken Peterson (Bedford Water Dept.)
RE: Roy Bros., Haulers, TDD No. F1-8612-11 Sept. 17.
26. Silverman B. (NUS/FIT) 1987. Telecon with Rick Hanes (Burlington Water Dept.)
RE: Roy Bros., Haulers, TDD No. F1-8612-11 Sept. 17.
27. NUS/FIT) 1987. Logbook No. 87-793. Roy Bros. Haulers (F1-8612-11)
28. Guild Drilling Co. 1986. Well logs of wells B-1, B-2, B-3 at Billerica, MA. Sent
to Bartlett W. Paulding. May 1.
29. Paulding, B. W. (Consulting Geologist, Bartlett W. Paulding Co.) 1986. Letter
to Steve Johnson (Division of Hazardous Waste, DEQE) July 18.
30. Roy L. (President +, Roy Bros., Haulers) 1976. Letter to Glenn Gilmore (Water
Pollution Control, DEQE) Dec. 27.
31. Paulding Bartlett, (Consulting Geologist, Bartlett Paulding Co. 1985 Letter to
Peg Carson (Division of Hazardous Waste, DEQE) Project. # 8579. August 19.
32. NUS/FIT 1984. Site Inspection Report. Iron Horse Inspected by NUS/FIT. May 14.
33. St. Hillare (Regional Engineer, DEQE) 1981. Letter to Roy Bros., Inc.
RE: Billerica - Roy Brothers, Inc. Nov.; 315 CMR 2:00 SCC. Feb. 19.
34. Foster, R.D. (Technical Director, Resource Analysts, Inc. 1985. Letter to Bartlett
Paulding (Consulting Geologist; Bartlett W. Paulding Jr.) Dec 19.
35. Thortensen, P.T. (President, Thortensen Laboratory, Inc.), 1976 Letter to Glenn
Gilmore (Senior Sanitary Engineer, Division of Water Pollution Control) Nov. 3.



BASE MAP IS A PORTION OF THE FOLLOWING U.S.G.S. 7.5' SERIES QUADRANGLE(S):
WILMINGTON, MA 1965, PHOTOREVISED 1979 BILLERICA, MA 1965, PHOTOREVISED 1979

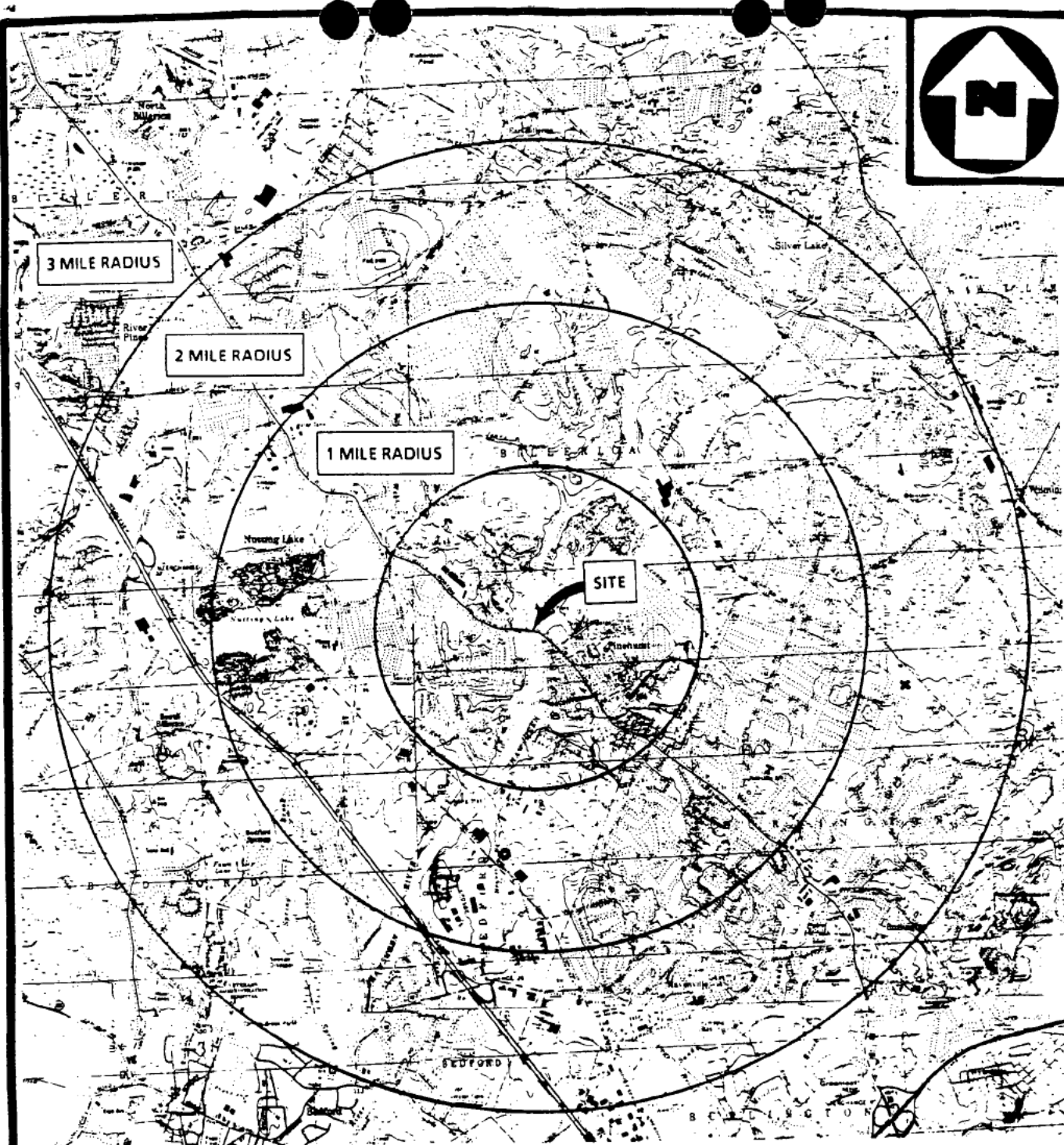
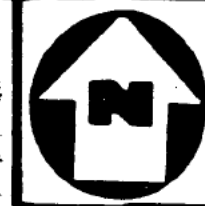


LOCATION MAP

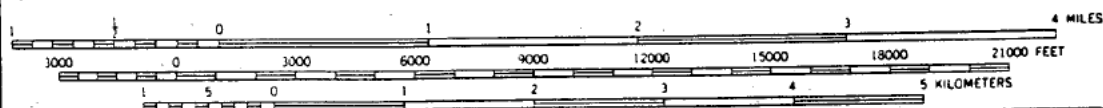
ROY BROTHERS HAULERS
BILLERICA, MA



FIGURE 1



BASE MAP IS A PORTION OF THE FOLLOWING U.S.G.S. 7.5' SERIES QUADRANGLE(S):
BILLERICA, MA 1965, PHOTOREVISED 1979
CONCORD, MA 1970, PHOTOREVISED 1979
WILMINGTON, MA 1965, PHOTOREVISED 1979
LEXINGTON, MA 1971

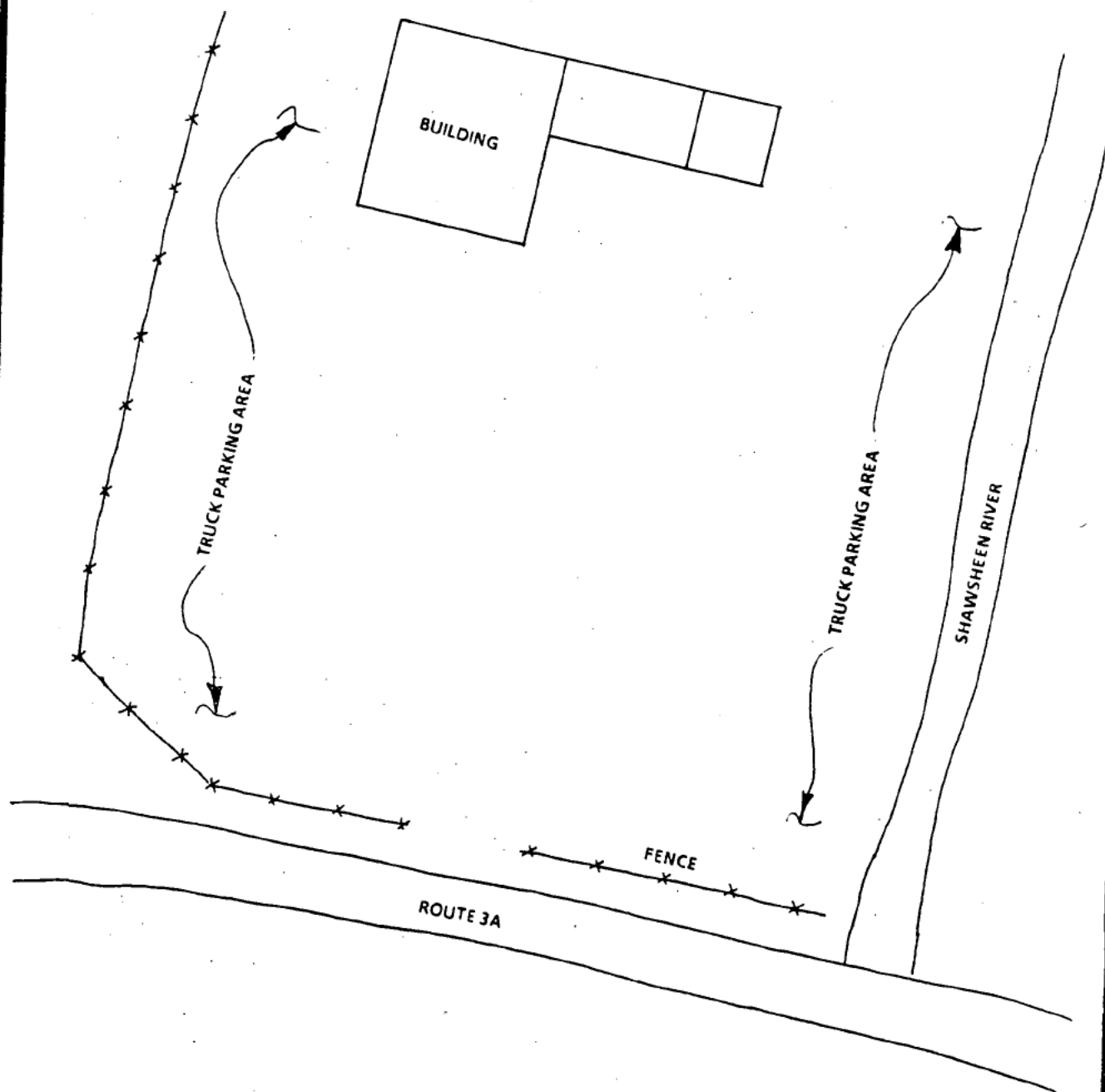


THREE-MILE RADIUS MAP

ROY BROTHERS HAULERS
BILLERICA, MA



FIGURE 2



NOT TO SCALE

SITE SKETCH

ROY BROTHERS HAULERS
BILLERICA, MA



FIGURE 3